Claims

1. A device for continuous or semi-continuous casting of metals, comprising an electromagnetic brake which comprises

- at least two magnetic cores (25, 26; 27, 28), arranged on one side of a mould (31) and attached thereto, and
- a yoke (32, 33), which is detachably connected to the two magnetic cores (25, 26; 27, 28) and interconnects them, ***characterized*** in that said yoke (32, 33) carries at least one coil (36, 37), substantially between the two magnetic cores (25, 26; 27, 28) interconnected by the yoke (32, 33).

2. A device according to claim 1, ***characterized*** in that the mould (31) is rectangular transversal to the casting direction and has two opposite long sides (29, 30), along one of which the yoke (32, 33) extends substantially parallel thereto and that the coil (36, 37) is wound around the yoke (32, 33) such that the centre axis of the coil (36, 37) is substantially parallel to said long side (29, 30).

3. A device according to claim 2, ***characterized*** in that the centre axis of the coil (36, 37) extends substantially perpendicularly to the casting direction in the mould (31).

4. A device according to any of claims 1-3, ***characterized*** in that the magnetic cores (25, 26, 27, 28) are permanently secured to the mould (31).

5. A device according to any of claims 1-4, ***characterized*** in that the magnetic cores (25-28) are arranged with a space therebetween and that the coil (36, 37) is positioned substantially right in front of said space.

6. A device according to any of claims 1-5, ***characterized*** in that the yoke (32 ,33) substantially defines a bar or plate, and

that the coil (36, 37) is wound around a centre portion (34, 35) of the bar or plate.

7. A device according to any of claims 1-6, ***characterized*** in that the magnetic cores (25, 26; 27, 28) cover substantially the entire width of the mould (31), except for a centre portion of the mould (31).

8. A device according to any of claims 1-7, ***characterized*** in that the yoke (32, 33) comprises a portion (34, 35) which is detachable from the rest of the yoke (32, 33) and carries the coil (36, 37).

9. A device according to claim 8, ***characterized*** in that the yoke (32, 33) defines a cradle arranged to receive the portion (34, 35) carrying the coil (36, 37) and allow displacement of said portion (34, 35) substantially vertically out of said cradle.

10. A device according to claim 9, ***characterized*** in that the yoke (32, 33), in addition to said portion (34, 35) carrying the coil (36, 37), comprises two yoke parts (38, 39; 40, 41), arranged on opposite sides of this portion (34, 35), forming said cradle and each having a surface (46, 47; 48, 49) adapted to abut against a respective magnetic core (25, 26; 27, 28).

11. A device according to any of claims 1-10, ***characterized*** in that the yoke (32, 33) comprises at least one portion (42-45) being detachably connected to the rest of the yoke (32, 33) and arranged to be detached for access of parts of the device which are arranged vertically under the electromagnetic brake.

12. A device according to claim 11, ***characterized*** in that said portion (42-45) is a peripherical portion of the yoke (32, 33) being pivoted relative to the rest of the yoke (32, 33).

13. A yoke for an electromagnetic brake (24) of a device for continuous or semi-continuous casting of metals, comprising two separate surfaces adapted to detachably abut against one magnetic core (25, 26; 27, 28) each of two magnetic cores (25, 26; 27, 28) arranged on one side of a mould (31), ***characterized*** in that it carries a coil (36, 37) being wound around the yoke (32, 33) substantially between said surfaces (46, 47; 48, 49).

14. A yoke according to claim 13, ***characterized*** in that it is elongated, that said surfaces (46, 47; 48, 49) extend substantially in parallel with its longitudinal direction and that the coil (36, 37) is wound transversal to said longitudinal direction such that its centre axis is substantially parallel to the longitudinal direction.

15. A yoke according to claim 13 or 14, ***characterized*** in that it comprises a portion (42, 43; 44, 45) which is detachable from the rest of the yoke and carries the coil (36, 37).

16. A yoke according to claim 15, ***characterized*** in that it defines a cradle arranged to receive the portion (34, 35) carrying the coil (36, 37) and allow displacement of said portion (34, 35) substantially vertically out of said cradle.

17. A yoke according to claim 15 or 16, ***characterized*** in that it, in addition to the portion (34, 35) carrying the coil (36, 37), comprises two yoke parts (38, 39; 40, 41), arranged on opposite sides of this portion (34, 35), forming said cradle and having the surfaces (46, 47; 48, 49) which are adapted to abut against a respective magnetic core (25, 26; 27, 28).

18. A yoke according to any of claims 13-17, ***characterized*** in that it comprises at least one portion (42, 43; 44, 45) being detachably connected to the rest of the yoke (32, 33) and ar-

ranged to be detached for access of parts of the device which are arranged vertically under the electromagnetic brake.

19. A yoke according to claim 18, ***characterized*** in that said portion (42, 43; 44, 45) is a peripherical portion of the yoke (32, 33) which is pivoted relative to the rest of the yoke (32, 33).

20. A device for continuous or semi-continuous casting of metais, comprising an electromagnetic brake which comprises

- at least two magnetic cores (25, 26; 27, 28), arranged on one side of a mould (31) and attached thereto, and
- a yoke (32, 33), which is detachably connected to the two magnetic cores (25, 26; 27, 28) and interconnects them, said yoke (32, 33) carrying at least one coil (36, 37), substantially between the two magnetic cores (25, 26; 27, 28) interconnected by the yoke (32, 33), ***characterized*** in that the coil (36, 37) is wound around the yoke (32, 33) such that the centre axis of the coil (36, 37) is substantially parallel to one long side (29, 30) of the mould (31), that the centre axis of the coil (36, 37) extends substantially perpendicularly to the casting direction in the mould (31) and that the magnetic cores (25, 26; 27, 28) cover substantially the entire width of the mould (31), except for a centre portion of the mould (31).